MUSHROOMS IN MINNESOTA

Frequently Asked Questions

Mushrooms occupy a unique space at the intersection of food, medicine, and psychoactive use.

Culinary varieties are staples worldwide, while many "functional" mushrooms are marketed for immune support, cognitive enhancement, and wellness.[1] At the same time, certain species containing psychoactive compounds remain largely illegal under federal law but are growing in popularity.[2]

The mushroom product market, including gummies, chocolates, capsules, and beverages, has expanded rapidly in Minnesota and across the nation, blurring lines between conventional foods, dietary supplements, and controlled substances.[3] The proliferation has raised complex questions about legality, product classification, and safety.[4] High-profile cases, including the Diamond Shruumz™ brand investigation following a multistate outbreak of poisonings, underscore how product labeling, composition, and marketing claims can create regulatory ambiguity and pose potential public health risks.[5]

This Q&A outlines the current legal landscape, highlights areas of regulatory uncertainty, and explores emerging public health concerns.

Q: Which categories of mushroom products are clearly lawful?

A: Several categories of mushroom products are clearly lawful:

Culinary mushrooms

Common edible mushrooms (e.g., button, portobello, oyster, shiitake) are regulated primarily by the United States Food and Drug Administration (FDA) for food safety,[6] along with United States Department of Agriculture (USDA) standards[7] and state regulations for wild-foraged mushrooms.[8]

Non-psychoactive "functional" mushrooms

Dietary supplements, such as reishi, lion's mane, and maitake, are regulated by the FDA under the federal dietary supplement framework.[9] Unlike prescription drugs, supplements do not require premarket approval, but manufacturers are responsible for safety and compliance with FDA labeling rules and for avoiding claims that the product can be used to diagnose, treat, cure, or prevent disease.[10]

Psychoactive mushrooms approved for scientific research

Research on psychoactive mushrooms is lawful but tightly regulated.[11] As described in more detail below, the psychoactive compound in psychedelic mushrooms is illegal under federal law. Research, however, is permitted.[12]

Q: Which mushroom products are explicitly prohibited under federal law?

A: Mushrooms of the Psilobe genus ("magic mushrooms" or "shroomz") contain the psychoactive compound psilocybin and/or psilocin (herein collectively referred to as psilocybin),[13] which are both classified as Schedule I substances under the federal Controlled Substances Act.[14]

Q: Is there ongoing research into potential medicinal or therapeutic uses for psilocybin?

A: Yes, psilocybin is currently being studied to treat a range of conditions including substance use disorders, depression, and anxiety; however, substantial scientific and regulatory questions remain.[15] Reflecting these concerns, the American Psychiatric Association notes there is "inadequate scientific evidence for endorsing the use of psychedelics to treat any psychiatric disorder except within the context of approved investigational studies."[16] If clinical trials demonstrate safety and efficacy, psilocybin could eventually enter a regulated prescription framework.[17]

Q: Where does legal ambiguity exist in the mushroom-derived product marketplace?

A: Several product categories fall into legal gray zones:

State and Local Decriminalization / De-prioritization of Psilocybin

While federal law prohibits psilocybin, some states have decriminalized it or created limited access frameworks[18] (e.g., Oregon[19] and Colorado[20]). As seen in the context of state cannabis reforms, this dynamic can create a legal gray area when states decline to criminalize conduct that federal law prohibits.[21] While federal law generally preempts conflicting state law, the Tenth Amendment limits the federal government's ability to compel states to enact or enforce criminal prohibitions.

At the local level, although local governments are generally preempted from enacting laws that contravene federal and state law, counties and municipalities may be able to establish and implement law enforcement priorities, allowing them to de-emphasize certain types of crimes. For example, in 2023 the City of Minneapolis issued a mayoral executive order deprioritizing the investigation, arrest, and prosecution of activities involving entheogenic plants and fungi, including psilocybin.[22] This action makes enforcement of laws pertaining to these substances among the city's lowest law-enforcement priorities; however, it does not legalize psilocybin. This type of arrangement can cause confusion among enforcement agents, retailers, and consumers alike.

Amanita muscaria products

Amanita muscaria (fly agaric mushroom) is commonly recognized by its distinctive red cap with white spots and is a globally distributed species found across many regions of the world. Its psychoactive properties have been used for thousands of years in various cultural practices.[23] Under U.S. federal law, Amanita muscaria and its primary psychoactive compounds—muscimol and ibotenic acid—are not classified as controlled substances.[24] However, they are also not approved for use in food.[25]

Consumption of Amanita muscaria poses a public health concern due to its potential to cause acute intoxication and poisoning, as illustrated by recent reports of illness and death following ingestion.[26] Despite this, products containing extracts of Amanita mushrooms are widely marketed as gummies and vape products, potentially exposing manufacturers and retailers of these products to enforcement action by the FDA under the Federal Food, Drug, and Cosmetic Act.[27]

Still, because Amanita mushrooms and their psychoactive compounds are not federally scheduled drugs, possession is not prohibited at the federal level. Recognizing the increasing popularity and potential public health harms associated with Amanita muscaria, state and local governments may consider taking action to restrict sales and access to Amanita products.[28] For example, Louisiana expressly prohibits the sale of Amanita muscaria for human consumption.[29]

Following recent investigations into hospitalizations after people ingested gummies labeled to contain Amanita muscaria, the Centers for Disease Control and Prevention has warned that consumers of mushroom products marketed as psychedelic or nootropic (i.e., taken for cognitive enhancement) should be aware of the potential for inaccurate product labeling and inclusion of undisclosed ingredients, including "substances that might produce unexpected and potentially toxic effects."[30]

"Mushroom Blend" and "Proprietary" Edibles

Mushroom-infused edibles, such as candy and syrups, are rapidly gaining popularity across the United States and represent an emerging public health concern.[31] These products are widely available and frequently contain undisclosed or inconsistently formulated components.[32] Manufacturers market some products as containing "mushroom blends" or "proprietary" formulations without clearly identifying, or, in some cases, mislabeling their psychoactive constituents, raising significant consumer safety concerns.[33]

Moderate to severe illness, or even death, may result from consuming products with unregulated or mislabeled psychoactive substances. For example, in 2024, a multistate outbreak of severe poisonings in the United States was linked to edible Diamond Shruumz-brand products (e.g., chocolate bars, gummies, and cones).[34] This outbreak involved 180 illnesses, 73 hospitalizations, and 3 potentially associated deaths.[35] As a result, all Diamond Shruumz-brand products were recalled.[36] Investigations found that the products contained psychoactive or potentially harmful compounds, such as psilocin and muscimol, and some were not listed as ingredients.[37] No single compound fully explained the severity of cases.[38]

The Diamond Shruumz case highlights the potential risks associated with ingesting products that contain unregulated or mislabeled psychoactive substances, underscoring the importance of careful product oversight and consumer awareness.

Q: What public health risks are associated with the expanding mushroom product market?

A: The rapid growth of the mushroom product market presents several emerging public health concerns. One significant risk involves mislabeling and adulteration, as products marketed as mushroom-based have, in some instances, also contained undisclosed synthetic drugs, leading to unexpected psychoactive effects, toxicity, and hospitalizations.[39] Inconsistent product composition may elevate the likelihood of adverse effects.[40]

Consumer confusion remains a significant issue, as the blending of culinary, functional, and psychoactive mushroom branding may obscure important distinctions related to safety, legality, and expected effects.[41]

There are also ongoing concerns regarding the abuse potential of these products and the short- and long-term consequences of use, particularly among adolescents.[42] Edible mushroom products, such as candy or snack items, are sold through a variety of outlets, including retail and convenience stores and online platforms.[43] Youth access and marketing practices may

further heighten public health risks.[44] Alarmingly, a 2024 federal survey estimated that 1.2 percent of American adolescents between the ages of 12-17 years old and 2.7 percent of Americans aged 12 or older reported using psilocybin in the past year, figures that do not account for the use of other mushroom-derived products.[45]

Finally, there is limited understanding of the interaction between psychoactive mushroom compounds and other drugs, such as cannabis, alcohol, and medications.[46]

Q: What programmatic, education, or other specific public health strategies could reduce legal confusion and protect consumers?

A: The following complementary strategies could help reduce regulatory uncertainty while strengthening consumer protections associated with legal mushroom-based products:

- Clear labeling and transparency: Mandatory disclosure of active compounds and third-party testing for all currently unregulated products could help reduce mislabeling and contamination.
- Youth access restrictions: Marketing and sales safeguards similar to those employed in tobacco control contexts could reduce the attractiveness of mushroom products among youth.
- Targeted enforcement: Regulators could focus enforcement resources on eliminating adulterated or misbranded products containing undisclosed psychoactive substances. Still, given the resources required to identify adulterated and misbranded products, enforcement could be challenging, especially for less-resourced local governments.
- Public education: Consumers could benefit from reliable guidance distinguishing culinary, functional, and psychoactive mushrooms, as well as legal distinctions, health risks, and drug interactions.
- Research and data collection: Clinical studies on the safety, toxicity, and therapeutic potential of legally available mushroom products could help support evidence-based policymaking.

Conclusion

Mushroom-derived products now occupy a complex regulatory landscape where clearly lawful culinary and functional mushrooms coexist with emerging products that fall into legal and scientific gray areas. While federal law continues to prohibit psilocybin, other psychoactive mushroom products, such as those containing Amanita muscaria or undisclosed "mushroom blends," are increasingly marketed despite limited regulatory clarity and growing public health concerns. Moving forward, clearer regulatory frameworks, improved labeling transparency, targeted enforcement, public education, and continued research will be critical to reducing consumer confusion, protecting public health, and supporting evidence-based policymaking.

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Endnotes

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